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# Marketing Activities

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## THE BALANCE OF THE BEAM

By Frank W. Miller

Weighing is almost as old as commercial agriculture itself. The picture writing of the Egyptians, inscribed on their temples many hundreds of years ago, shows goods being weighed. And while history does not record it, the people of the distant past probably clamored and worked for truth in weighing--for an accurate balance of the scale. These efforts have not abated down through the ages, and today there are standards and treaties among nations so that men can barter and trade with more confidence in the accuracy of the weight.

Our own Government shares this keen interest in accurate scales, and one of the functions of the Agricultural Marketing Service is to work for honest weighing of livestock and poultry at markets supervised under the Packers and Stockyards Act. Over 2,000 tests of scales were made at supervised stockyards last year, and more than 200 showed defects of one kind or another. Some were bad enough to require overhauling of the scale. About 34 old or obsolete scales were replaced by new ones and new beams were put on about the same number of scales.

This work, like most governmental activities, must be adapted to changing conditions. Years ago a truckload of livestock at a terminal market was a novelty. Almost everything rolled in over the rails. The larger stockyards were built largely as adjuncts to or in relation to the railroad lines. All their equipment for unloading, yarding, and weighing was built on the basis of carload lots. The scales were large--many were large enough to hold a full car of cattle at one time. Beams with capacities of 100,000 pounds were not uncommon. The equipment fitted the times.

Smaller Scales Needed

But the times changed--gradually at first, then at a faster clip. Trucks and still more trucks began to appear at the stockyards. The lots of livestock became smaller. Many single-head shipments began to show up. The big scales, costly to install and maintain, were not suited for weighing one calf or one lamb or even a half-dozen head at a time.

So, recognizing the problem for what it was, the Agricultural Marketing Service set patiently but persistently to work to get those outmoded scales replaced by smaller models. Some stockyard managers shook their heads when they thought of tearing out or remodeling their big, costly scales. But the change to truck shipments appeared to be permanent--there seemed to be no end to it--so, one by one, replacements have been made. It is only occasionally that big scales are found in use nowadays.

Whether the scales are large or small, the weighing ought to be done for all the world to see, perhaps in a kind of goldfish bowl. And some of the scale houses are practically that. They have large windows all around, good lights for dark days, and open fences around scale platforms. A yardman leaning on the fence, a gate not closed--any interference with the scales shows up like a scene in a movie.

There is really no reason for dark corners or high board fences when livestock is being weighed. The Agricultural Marketing Service is having the fences torn down, is cleaning out the dark corners, and is shedding the light of day on the scales. Everybody seems to like it.

#### Scales Must be Tested Frequently

Scales don't stay reliable on their own accord and they do not repair themselves by some kind of magic. Someone has to check up on them at frequent intervals. This is where scale testing, inspection, and supervision come in.

Years ago testing livestock scales was a rather sketchy procedure with a few hundred or at most a few thousand pounds of 50-pound standard test weights employed. This was good as far as it went, but it didn't go far enough. Finding a scale to be accurate at a load of 1,000 or 2,000 pounds by no means proves that it will accurately weigh a load of 5,000 pounds. Scales must be tested with standard weights up to the capacity at which the scales are used. If 30,000 pounds of cattle are weighed, the scale must be tested to that weight.

Many stockyards today have as much as 30,000 pounds of specially made standard test weights and equipment to move them readily. These yards test their scales three or four times a year with this heavy load. If any scale has a weak spot, it shows up when that much load is put on one of the sections.

When the scale is tested it is also thoroughly inspected. This inspection covers the beams, bearing, pivots, and poises--all the intricate and important parts. Everything found is carefully recorded on report forms. The history of each scale is a matter of written record.

#### Human Element Is Important

The human element is all important. A scale may be well built and accurate to the nth degree. It may be spick and span as a new watch. But a careless or dishonest man at the beam can undo the efforts of the most expert scale makers. Occasionally a weigher will accept a bribe or favor a buyer or seller. Some have been caught and dealt with accordingly. Others, perhaps, have not been caught--but they will be--sooner or later. Dishonest weighers inevitably take the one step that gets them into serious trouble.



By and large, though, the bulk of complaints on weighing arise from the ignorance or carelessness of the weigher. Here is a field in which much can be and is being done. Both by written word and by word of mouth the Agricultural Marketing Service is telling weighers how to handle the scales more competently. This must be a continuing campaign if the results sought are to be realized. Weighers, operators of stockyards, and livestock producers must be made "scale conscious."

Nothing could do more to improve the caliber of weighing than for producers to watch their livestock being weighed. Sometimes it's hard, even for an experienced person, to tell when a swinging beam is in center balance. But a device known as a "balance indicator" does a very good job of showing when the scale is in proper balance, regardless of whether the producer knows one end of the scale from another. The device is simple; an arrow points to a center mark when the balance is correct. The Agricultural Marketing Service has encouraged the use of the indicator and they are employed at many yards today.

If weighing is poorly done, the producer loses at the scales a great deal of the benefits that come from efficient producing and marketing practices. If weighing is poorly done, the stockyard is deluged with complaints that eventually mean a loss of patronage. The only possible answer to the problem can be summed up in two words: Accurate weights.

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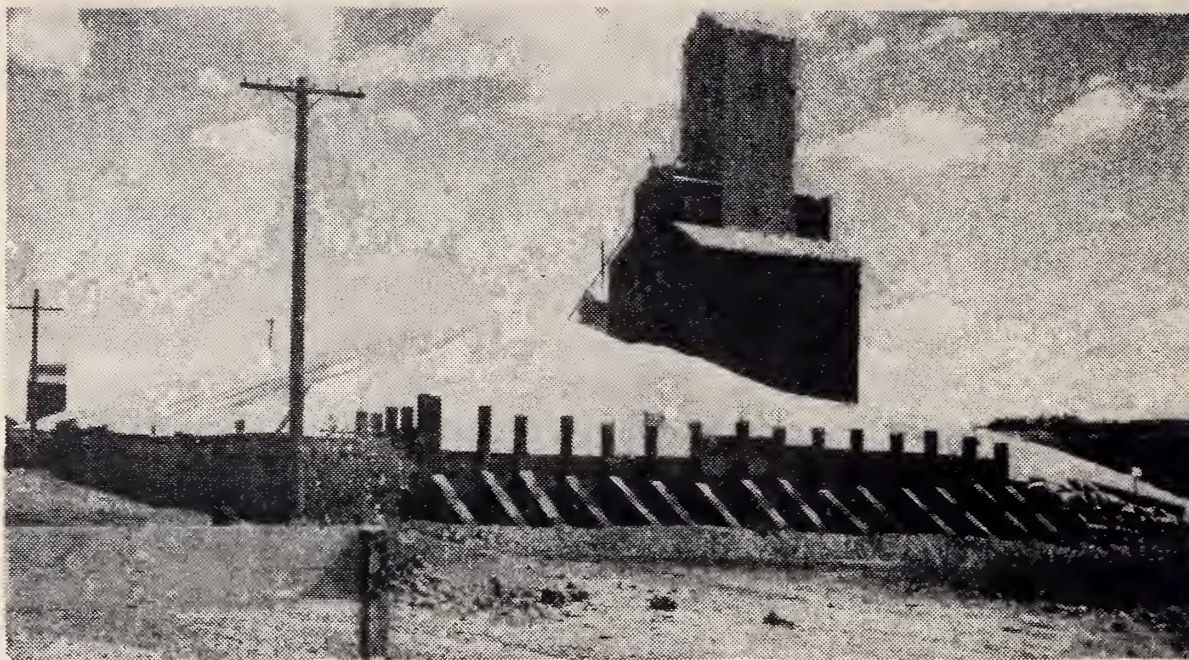
#### CALIFORNIAN PROVES THAT COWS HAVE FULL QUOTA OF HORSE SENSE

Horses are given credit for having a lot of sense, but, according to W. H. Alison, farm adviser in Merced County, Calif., cows aren't so dumb either. Alison, who represents the University of California Extension Service, says the advent of the walk-through milking barn has convinced dairymen in his county that there is such a thing as cow sense after all.

In the operation of a walk-through barn, only four or six cows are in the barn at one time, the rest being kept in a holding corral, or pen, waiting their turn to be milked. "If you go out to these dairies," says Alison, "you'll find every cow has a name or number, and what is more important, she knows her name or number."

"As fast as a cow is milked, the milker opens the stanchion and the cow walks on out to the feed barn or pasture. The milker then opens the door to the holding corral and calls out the name or number of the next cow to be milked. If he calls out for Daisy, no matter where she is in the corral, you'll see her start nosing her way through the crowd and in a few moments she is being milked. When every cow in a milking herd responds to her name, it's proof beyond doubt that cows have horse sense."





Through the establishment of orderly marketing procedures, the 1941 wheat crop moved into storage with little difficulty despite a shortage of elevator and warehouse space in some areas. But farmers who brought their wheat to this Lind, Wash., elevator found the bins chock full. As shown above, they piled about 400,000 bushels on the ground until storage space could be found elsewhere.

However, elevator operators storing this wheat believe that it will crust over and shed the water without being covered with a tarpaulin. After three hard rains, the wheat -- to a depth of about an inch -- was 25 percent sprouted. But below the surface covering the grain appeared to be in good condition.

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#### QUALITY OF WHITE WHEAT

##### UNUSUALLY GOOD THIS YEAR

The quality of white wheat, the leading class produced in the Pacific Northwest, is unusually good this season with 58 percent of the inspected receipts during the last half of August grading No. 1 and 35 percent No. 2. This compares with 23 and 48 percent respectively for the corresponding period last season and the seasonal average of 42 and 47 percent respectively. A somewhat larger percentage than last season classed as Hard White Wheat.



NEW YORK FIRM DEBARRED  
FROM EGG GRADING SERVICE

Delivery of 40 cases of eggs under a fraudulent stamp resulted in the 1-year debarment of the Metro Butter and Egg Company, of New York City, from the privilege of having its eggs officially graded and certified by the U. S. Department of Agriculture. Following hearings which indicated that the company had substituted inferior, uninspected eggs for other eggs that had been officially inspected and stamped, the Department ordered that the New York company be debarred for 1 year. The order became effective September 25.

The findings showed that the Metro Butter and Egg Company, 340 Greenwich St., New York City, had had 40 cases of eggs inspected and passed by an official grader of the U. S. Department of Agriculture, for delivery to the U. S. Veterans' Administration Facility at Northport, Long Island. The inspected eggs were officially stamped. The eggs received by the Veterans' Administration Facility on March 14, 1941, under the contract, bore fraudulent stamps and the substituted eggs delivered were inferior to those officially graded.

The Department of Agriculture, in releasing its findings in the case, made this observation: "Obtaining inspection and certification of products by disinterested graders is a privilege conferred by the Government in an effort to aid commerce by providing marks of quality upon which all may rely. Those receiving the service profit and are benefited by the reliance placed on those marks by customers and prospective customers. Such benefits do not accrue without corresponding duties. On those who are privileged to receive grading service, there is a high obligation to see that they and all of their employees and agents do nothing that might have the effect of lessening the faith that may justly be placed in Government certifications of grade and quality."

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FARM EMPLOYMENT DATA OF AMS  
IN CLOSE AGREEMENT WITH CENSUS

Back in the spring of 1940 the Agricultural Marketing Service estimated--from a small "sample"--that 9,797,000 family and hired workers were employed on farms on April 1, 1940. Figures issued recently by the Bureau of the Census indicate that the Service was on the right track. The Census data--an actual enumeration--indicate that the number of family and hired workers employed on farms during the week ended March 30, 1940, was 9,694,000. The difference between the findings of the two agencies was only about 1 percent.

The current estimates of the service ran slightly higher than the Census enumeration because of a difference in the basis for collecting the data, officials believe.

NATIONAL MARKETING OFFICIALS TO  
MEET AT ST. LOUIS OCTOBER 28-30

The National Association of Marketing Officials, at its convention to be held at St. Louis October 28-30, will discuss the general theme of food distribution during the national emergency. Discussion leaders and speakers at the various sessions have been selected to represent each of the States from which delegates will attend, and the Federal agencies concerned with marketing service and regulatory work. J. H. Meek, Secretary-Treasurer of the Association, has announced that addresses on Federal-State relations, central market facilities, the Food-For-Defense Program, and the agricultural and business outlook will be high lights of the convention. The annual business meeting and election of officers for 1942 will bring the 3-day meeting to a close.

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MICHIGAN FIRM FINED FOR  
INSECTICIDE ACT VIOLATION

A fine of \$400 was imposed in Federal Court recently against the Gem Products & Manufacturing Company, Detroit, Mich., for violation of the Federal Insecticide Act. The company had shipped in interstate commerce a misbranded and adulterated disinfectant.

This product--Gemco Germ Spray--was recommended for use in hospitals, schools, county infirmaries, clubs, and public buildings to prevent and control the spreading of infectious diseases. The preparation was useless for these purposes, inasmuch as it contained 73 percent less formaldehyde, the active ingredient, than the percentage claimed by the labeling.

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HEAVY MILK PRODUCTION EXPECTED  
DURING FALL AND WINTER MONTHS

Milk output will probably continue heavy during the fall and through the winter feeding period, the Agricultural Marketing Service reports in the September issue of Dairy Production. The present high rate of production is due primarily to prices, and if, as is now indicated, a large volume of production is needed this winter, prices should continue favorable for liberal feeding in most areas. Prospects for heavy winter production appear best in the Middle West, where pastures have been helped by widespread rains, where the shift toward fall freshening is taking place, and where large grain crops cushion the effect of rising feed prices. The production of manufactured dairy products continues heavy and accounts for most of the increase in milk output. Compared with the same month last year, August estimates show creamery butter production up 37 percent and American cheese up 20.4 percent.



## --WITH ALL THE TRIMMINGS

By E. Smith Kimball

The U. S. Department of Agriculture has good news for consumers this fall--at least for the folks who like turkey for Thanksgiving or Christmas or both. The Department estimates the 1941 turkey crop at 33,553,000 birds, and this, by a small margin, establishes a new record. It will mean an abundant market supply, even though cold storage holdings of turkeys on September 1 were down 8 million pounds and more birds will be held over the winter for breeders.

Considering the keen demand for farm products in general, turkey prices can be expected to be substantially higher than last fall. Even as early as mid-September, prices received by farmers for their turkeys were 22 percent higher than a year earlier. But at that the increase was not as pronounced as for other kinds of meat.

It won't be apparent to the individual purchaser, of course, but the average live weight of turkeys at the time of marketing will be a fourth of a pound heavier than last year--12.2 pounds for hens and 18.6 pounds for toms, compared with 12.0 pounds for hens and 18.3 pounds for toms last year.

The average weight of turkeys has increased for several years in response to the growing popularity of the broad-breasted type with producers as well as consumers. Hotels and restaurants, many of which feature turkey dinners the year 'round, look with favor upon the broad breasts and meaty legs and carcasses characteristic of this type. The heaviest birds are raised in the Far Western States, particularly in Washington.

Small Turkeys in Keen Demand

There has always been a good demand for small turkeys for family dinners. But in recent years the proportion of small turkeys has decreased and heavy stocks of large birds have accumulated. Last year, in order to move the "whoppers" along with the lighter ones, merchants set up a substantial price differential. As a result the heavier turkeys, at lower prices, moved into consumption faster than the lighter birds, leaving a preponderance of the latter on hand. The differential price system was sound, but the spread between prices of light and heavy turkeys was too wide and failed to provide intermediate prices for turkeys in the 12-16 pound range.

This year the Government is buying several hundred thousand heavy turkeys for its men in uniform. Considering these purchases, together with the demand from hotels and restaurants, it may be unnecessary to establish a price differential in favor of the heavier birds.

Turkey marketings this year are expected to be earlier than in 1940, growers having stated that they intend to move 54 percent of the

crop in November and earlier, compared with 51 percent last year. However, with a greater-than-usual September price rise this year, the Thanksgiving marketings may be larger than growers' earlier intentions. The producer must plan his marketings several weeks in advance every year, because it takes a period of intensive feeding to put his birds in top shape for market. Turkeys to be marketed after Thanksgiving, which include the late-hatched birds, can be brought into condition more slowly.

Whether the housewife buys her turkey at the beginning or the end of the main turkey-eating season, she is very particular about the kind of bird she purchases. If she is entertaining a large group, she wants a big, plump turkey with ample capacity for dressing to go with a generous serving of delicious meat. If she is preparing a Sunday turkey dinner for the family, she will want a smaller bird. But it must be plump and attractive--not just a poorly fed bird with a stingy covering of meat.

#### Buying by Grade is Easier for Consumers

Large numbers of turkeys graded on the basis of the U. S. standards are available every year, particularly in the cities, and Mrs. Housewife is less likely to go wrong in her purchase if she buys by grade. There must be no blood or dirt on any part of the carcass of a graded turkey, and any condition that would render the bird unwholesome or unfit causes it to be thrown out of even the lowest grade.

Turkeys of the U. S. Special grade are tops. They must be fully fleshed and fully fattened. And they must have almost perfect dressing and no imperfections.

Well-fleshed and well-fatted birds, with no major defects and only a few minor imperfections, meet the requirements of the U. S. Prime grade. Falling in the category of major defects are torn skin, hunched backs, crooked breastbones, and severe bruises on the carcass.

Turkeys with fairly well-fleshed and fairly well-fatted carcasses are representative of the U. S. Choice grade. They may have minor deformities, abrasions, and small bruises, and may have a few scattered pin feathers over the entire carcass.

Birds in the U. S. Commercial grade may have major deformities, such as crooked breasts or hunched backs. They may be poorly fleshed and poorly fattened. They may contain numerous pin feathers and abrasions, and torn skin is permitted.

Whether consumers buy by grade or just buy, they should pick out their turkey with definite factors in mind. A fat well-fleshed bird,



for example, generally means juicier and tastier meat and the percentage of edible weight is larger. A hunched back or a crooked breast bone is unsightly, and bruised or scuffed skin tends to darken during the roasting process, thus detracting from appearance. And too many pin feathers may mean tedious scraping in order to get the bird ready for roasting.

In view of the large number of turkeys produced this year, it will not be difficult to find the quality desired. If the turkeys displayed in the store on the corner are not suitable, the housewife can try the shop in the next block. It will pay her to "shop around" this year.

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#### APPLE PURCHASE PROGRAM MODIFIED TO HELP STORM-STRICKEN REGIONS

The Surplus Marketing Administration is expanding its apple purchasing program to salvage a portion of the storm-damaged apple crop in areas affected by high winds. Estimates indicate that several million bushels of late apples were blown from trees in western Kentucky, southeastern Illinois, southern Indiana, northern Ohio, southeastern Michigan, western New York, and northwestern Pennsylvania last week.

Purchases in these areas will be made on the basis of a modified U. S. Utility grade allowing for certain windfall damage. Prices to be paid for this grade of apples bought will range from 65 cents to 85 cents per bushel, depending upon the variety, extent of damage, and size of the fruit.

Distribution of the apples for relief and school lunch uses will be carried out as quickly as possible because of the condition of the fruit. In addition, the storm-damaged apples will be processed, for future distribution, in localities where processing facilities are available.

Purchases of apples in other sections of the country will continue on the same basis as in effect since buying started this season.

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In an effort to meet the Nation's defense requirements, evaporated milk manufacturers turned out an August pack of over 293 million pounds --the largest August pack of record. This production was 27 percent larger than the August pack of last year and 66 percent larger than the 5-year (1935-39) August average. It is significant that the August output was only 6 million pounds smaller than the July production. The difference is usually greater. It was 30 million pounds last year, compared with the 5-year average difference of 36 million pounds.

## NEW BULLETIN COVERS MARKETING OF PEANUTS

If you sat in front of a peanut-crunching spectator at the last football game you probably had to bear up under a blitz of discarded peanut hulls. But regardless of your feelings at the time, it may interest you to know that peanut hulls have become quite important these days, being utilized in the manufacture of floor-sweeping compounds, livestock feeds, paper board, fertilizers, linoleum, and dynamite.

Of course, the kernel itself is still the most valuable part of the peanut. And you might be surprised to hear that only about one-tenth of the peanut crop is used for roasting in the shell. The leading use is for the making of peanut butter. Salted peanuts come next, and then peanut candy.

This and other information--in fact, the whole life history of the peanut from the farm to the consumer--are included in a new publication of the U. S. Department of Agriculture's Marketing Service. Copies of "Marketing Peanuts and Peanut Products"--Miscellaneous Publication No. 416--may be obtained upon request to the Agricultural Marketing Service, Washington, D. C.

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## NEW POTATO STANDARDS NOT TO GO INTO EFFECT UNTIL JUNE 1, 1942

Revised U. S. standards for potatoes, scheduled to go into effect on October 10, 1941, will not become effective until June 1, 1942. The decision to postpone the effective date of the new standards was reached after a thorough study of current market conditions, Agricultural Marketing Service officials said. Futures trading in potatoes has been very active in recent weeks, and, under the Commodity Exchange Act, trading in old-grade potato futures must be confined to liquidation on or after the effective date of the new standards. Interference with the normal trading in potatoes at this time, it was believed, would have a disturbing effect on futures markets.

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The staple length of upland cotton ginned through September 15 averaged almost 1/16 of an inch longer but somewhat lower in grade than a year ago. Of the 1,587,038 bales of upland cotton ginned during the period from September 1 to 15, almost 13 percent were reduced in grade because of rough preparation.

Ginnings contained about 63 percent Middling White and better compared with about 72 percent last season. The proportion of Strict Low Middling White and below was 33 percent compared with 24 percent last year.



## MARYLAND HARVESTS ITS WORMSEED CROP

By C. E. Burkhead

Several hundred Maryland farmers are now harvesting one of the Nation's oddest crops--wormseed oil. This unique product, also known as oil of chenopodium, is obtained by distillation of the wormseed or chenopodium plant. The oil is used principally for the treatment of ascarid worm in animals and hookworm in humans, though it is reported to be employed in the manufacture of perfume and some types of marine paint.

The producing area in Maryland is centered in the vicinity of Mt. Airy, in the southern part of Carroll County, and has been for more than 100 years. Although the wormseed plant is found growing wild in all parts of the United States and in several foreign countries, it is said that 97 percent of the world's commercial production comes from the very small acreage under cultivation--about 1,000 acres--near the village of Mt. Airy.

Cultivation of the wormseed plant is quite simple. The seeds, black and very small, are planted in hotbeds along in February. When the young plants are 6 to 8 inches high, they are transplanted to the open field by hand, though machines are used in some cases. The crop is given frequent cultivation and is kept free of weeds because of their objectionable effect on the oil at the time of distillation. The wormseed plant is believed to be very soil-depleting and fertilizers are used by most growers.

Plant Must Reach Proper Stage of Maturity

Research has shown that the maximum volume of oil is obtained just before or at the time of pollination, but the oil obtained at this stage is decidedly deficient in ascaridole--the active ingredient. So growers allow the wormseed plant to reach a certain maturity in order to obtain a marketable oil. If the plants become too ripe, however, a considerable percentage of the seed is lost by shattering. Growers try to avoid such losses, because most of the oil comes from the seed. Lesser amounts are obtained from the hard, woody stock and from the small leaves.

The grower hauls the herb, which looks somewhat like hay, to one of the several stills in the neighborhood. Still equipment usually consists of a boiler for producing steam pressure, a large covered iron drum about six feet in diameter and about six feet deep, a condensation trough filled with cold running water, and several containers used for catching the condensed steam that contains the volatilized oil.

The wormseed herb is packed into the large iron drum, the top is securely sealed, and live steam is turned on. Penetrating all parts of the plant, the steam volatilizes the oil. Then the steam is drawn

off through pipes covered by cold water, the condensed liquid running into metal drums or barrels. The pure oil, being lighter than the water, rises to the top of the barrel. The water is then drawn from the bottom of the barrel, leaving only the oil. The distiller, in accordance with local custom, takes a percentage of the oil for his services.

The raw oil, light amber in color, has a very unpleasant smell, a bitter, burning taste, and contains lead and arsenic. The presence of these toxic chemicals means that the oil, if administered to humans, must be used with caution. Some years ago a small child was given a teaspoonful of the pure oil as it came from the still and death resulted. About 15 drops of the oil, or a quarter of a teaspoonful, is considered a normal dose.

#### Oil Produces Numbing Sensation

When the oil is applied to the skin it produces a numbing sensation and renders the part very sensitive to cold. Workers around the stills often experience this peculiarity and attribute it to the presence of oil fumes in the surrounding atmosphere.

There is considerable residue, known as "spent herb," left in the iron drum after distillation and this by-product belongs to the grower if he cares to haul it back to the farm. Many producers scatter the spent herb on the land as fertilizer, and livestock will eat the treated plant readily with no apparent toxic effect.

Maryland wormseed oil now sells for about \$2.25 per pound, though it has sold for as much as \$8.00 and for as little as \$1.25. The yield of oil per acre averages 40 to 60 pounds, which generally means a good return to the grower. However, because of the very limited uses to which the product is put, there appears to be little incentive for increasing production above its present proportions.

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#### FARM INCOME THIS YEAR SHOULD REACH 10 BILLION, BUT FARM COSTS ALSO UP

Consumer demand for farm products is increasing less rapidly now than in the first 8 months of this year. But prospects for farm prices and income continue above 1940, and total income from marketings of farm products is expected to reach \$10,000,000,000 this year. Cash income from marketings in 1940 totaled \$8,354,000,000. The Department of Agriculture points out, however, that part of this gain is being offset by higher prices of goods and services bought by farmers.

Basis for the high level of consumer buying power is the record volume of production of industrial goods. Total industrial output has been fluctuating around the high levels of mid-summer, and Department economists have begun to note a marked shift from the production of civilian durable goods to defense goods.



## THE LITTLE BROTHER OF THE POTATO INDUSTRY

By A. Clinton Cook

Surplus Marketing Administration

A pinch-hitter on the dinner menu for many years, the good old Irish potato now faces the task of helping to make the United States commercially self-sufficient. Curtailment of imports has seriously affected the supplies of many essential materials, including root starch, and when it comes to this particular product the potato can hang another blue ribbon on its lumpy bosom. Irish potato starch is regarded by the men who know as the best all-purpose starch on the market.

Starch, an essential dietary requirement of the human body, is also indispensable in industry. Root starch is particularly important in the sizing of textiles, and, as a basic ingredient of adhesives, it is used in the manufacture of plywood and veneer, envelopes, stamps, and paper.

Potato starch ranks No. 1 in the textile industry, which is willing to pay premium prices, if necessary, to obtain it for the sizing of fine-count materials such as the broadcloths used in shirts and sheetings. Starch is used to strengthen the threads, and to give a soft "feel" to the finish of the cloth. If this particular kind of starch were not used, the thread breakage during the weaving process would increase and hamper efficiency of production.

The domestic Irish potato starch industry is concentrated in Maine, where 27 factories go about the process of starch-making by eliminating the protein, fiber, and water from the pulped tubers. Maximum capacity of these factories is about 60 million pounds a season, though output averages only about 18 million pounds.

Starch Industry Has Ups and Downs

The potato starch industry has had periods of both smooth and rough sailing. Prior to 1843 potatoes were regarded as an excellent source of starch, and a correspondent in Vermont wrote that "So readily may potatoes be produced in the northern counties of Vermont that a price of 12 and 18 cents a bushel delivered at the starch mill makes potatoes one of the most profitable crops." But late blight appeared in 1843, production of potatoes was reduced 50 percent, and the starch industry almost vanished.

When the Canadian Pacific Railroad was completed to Ft. Fairfield, Me., in 1874, the starch industry grew so rapidly that in 10 years there were over 40 factories in operation. A few potatoes for table use were shipped to Boston and were well liked, but poor transportation facilities hampered their distribution.

But the Bangor and Aroostook Railroad was completed in 1900, and most of the potatoes began to move south to the populous mill areas of New England--for table use--and the starch industry began to decline. Though approximately 28 million pounds of starch were produced,

from 1903 to 1907, production since that time has been small except in years of very low prices.

Starch comes from three main sources--roots of tuberous plants, grains, and the pith from certain trees. These materials are numerous and are distributed widely throughout the world. Most important sources for commercial use are corn, potatoes, and cassava--the plant that supplies tapioca. The sago palm, wheat, rice, and sweetpotatoes are secondary sources.

In the United States, which produces about half of the world's corn, 98 percent of all the starch produced is made from corn. In Germany and the Netherlands, starch is made largely from potatoes, though the Netherlands also use cassava and sago. Brazil's production is mainly from cassava.

#### Root Starches A Necessity in United States

The trouble with this picture as far as the United States is concerned is that for many uses cornstarch is not nearly so suitable as potato starch. As imports of root starches decline, the expansion of potato starch production in this country becomes more essential. If imports from the East Indies continue to be reduced, the domestic potato starch industry could not supply the minimum need and several industries would be seriously handicapped.

Because it is not profitable to produce Irish potatoes solely for use as starch, this industry is an outlet only for cull and surplus potatoes. The Irish potato starch industry thrives most when there is a large surplus of potatoes. Prices for the potatoes to be used for starch are much lower than prices for market potatoes, thus the industry finds itself without raw material when the crop is small enough to sustain potato prices at a favorable level. So, except when surpluses exist, only the small, broken, misshapen, or otherwise unmarketable potatoes are used.

Approximately 40 percent of the potato starch industry is owned and operated by one company. Three plants are owned and operated by brokerage companies, while other plants are held by individuals or small local companies. One factory belongs to a potato growers' cooperative.

Most of the independent companies do not have adequate finances to carry their inventory of starch for more than a month, and this forces them either to sell the starch or to obtain a loan. Several plants during the 1940-41 season could not have continued their operations except for a loan from the Reconstruction Finance Corporation. Late in the season there was a sharp advance in the starch market and it was relatively easy to market the starch and to obtain loans from commercial sources.

Usually, not more than half of the factories are in operation in any one season; but with international trade declining because of the war,



it is probable that starch plants eventually will be utilized to their potential capacity. Operations begin some time after the potato harvest season is over, generally about January 1, and continue for about 100 days. However, there was a near-record crop last season and the factories started in late September and continued to June. The number of plants in operation and the duration of their activity depend on the quantity of potatoes brought to the factory, which, in turn, depends upon the size of the crop and the prices being paid for market potatoes.

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VICTORIA, TEX., COTTON MARKET  
STUDIED BY MARKETING SERVICE

Cotton farmers in the vicinity of Victoria, Tex., have organized a new type of market. There, members of the local cotton improvement area sell their crop in sizeable lots to buyers submitting bids under the supervision of a sales manager. Sales through the market during the 1940-41 season amounted to more than a half million dollars.

In view of the difficulties frequently encountered with such projects, the Agricultural Marketing Service has made a thorough study of the Victoria market. The results of this study, conducted by economist R. C. Soxman, appear in a new publication, "The Cotton Market at Victoria, Texas."

Mr. Soxman finds that certain desirable features of the Victoria market might well be adopted by markets in other areas. He points out, however, that the full advantages of marketing under the new system were not fully realized last year. Poor weather reduced the size of the cotton crop and reduced the volume of marketings.

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GOVERNMENT CLAIMS \$99,000  
IN STAMP PLAN VIOLATION

Following an investigation by the Surplus Marketing Administration, the Department of Justice, through the United States Attorney's Office, Western District of Pennsylvania, recently made demand on John D. Page Sons Company, Inc., a Pittsburgh dairy firm, for \$99,050. This represents the total amount paid to that firm on claims supported by food stamps.

The SMA investigation into the handling of food stamps by the Pittsburgh company disclosed continued irregularities in connection with the acquisition of food stamps and the presentation by this firm from April 13, 1940, through March 18, 1941, of such stamps to the Government for redemption. The SMA had previously denied the Pittsburgh firm the privilege of participating in the Food Stamp Plan, for failure to comply with the regulations.

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## HYBRID CORN ACREAGE CONTINUES TO INCREASE

Over a third of the Nation's corn acreage is planted to hybrids this year, the Agricultural Marketing Service says in a recent report. The figures show that out of a total of 87,363,000 acres planted to corn this year, 32,511,000 acres, or 37 percent, are in hybrids. The estimates are based on annual field surveys of the Agricultural Marketing Service beginning in 1938, and on surveys made by the Agricultural Adjustment Administration of the 1939 and 1940 crops in commercial corn counties.

The enormous expansion of hybrid corn acreage can be explained by simple arithmetic, the report says. Experiment station data and surveys indicate that, depending on the adaptation and the conditions under which they are grown, hybrids outyield the open-pollinated varieties by 10 to 30 percent or more. A bushel of corn will plant 7 acres in the Corn Belt. If hybrids outyield open-pollinated varieties by only 15 percent under similar conditions, they will be yielding 28.75 bushels per acre when open-pollinated corn is yielding 25 bushels. That means an increase on the 7 acres of 26.25 bushels in favor of hybrids. In other words, 7 acres of hybrids would produce a little more than 8 acres of open-pollinated corn.

The rapid progress in the development of hybrids represents the untiring efforts of breeders and the early sacrifices of many seedsmen, the report emphasizes. The formula for hybrid corn was known before the turn of the present century but it was not put to practical use until a few years ago.

Hybrid seed is the product of crossing two or more strains of corn that have been inbred for several generations to bring out the good and bad characteristics--the strains with good characteristics are kept; the bad are rejected. In this way a hybrid, like the Army's new streamlined divisions, has been stripped of its encumbrances, the undesirable characteristics. When this has been accomplished, the individual plants from a hybrid are as much alike as peas in a pod, as uniform as an army in uniform. And like the individual soldier in a well-trained army, every plant does its part. There are few barren plants in fields planted with hybrid seed.

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Prices received by the Nation's farmers for their products about September 15 averaged 43 percent higher than a year ago and stood at the highest level since February 1930. Continuing the steep climb noted in each of the last 6 months, the farm commodity price index rose 8 points during the month to reach 139 percent of the August 1909-July 1914 average. At this level, farm product prices exceeded the average of prices paid, interest, and taxes for the first time in 21 years.

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-PERTAINING TO MARKETING-

The following reports and publications, issued recently, may be obtained upon request from:

The Agricultural Marketing Service:

The Photometric Determination of Protein in Wheat... By Lawrence Zeleny (Address)

Marketing Peanuts and Peanut Products... By Harold J. Clay (See page 12)

Nation-wide Survey Shows over Third of U. S. Corn Acreage Planted to Hybrids (See page 18)

The ABC of Canned Fruit and Vegetable Labeling--Miscellaneous Publication No. 460

Method of Computing Parity Prices for Farm Products

Refrigerated Warehouse Space Survey as of June 16, 1941

Standards:

Tentative U. S. Standards and Grades for Dressed Turkeys and  
Tentative U. S. Classes and Sub-Classes for Dressed Turkeys

U. S. Standards for Grades of Canned Asparagus

U. S. Standards for Grades of Canned Beets

Handbook of Official Grain Standards of the United States (Revised)

Market Summaries, 1941:

Northwestern Fresh Prunes

Colorado Melons

The Bureau of Agricultural Economics:

Outlook for Cotton. In The Cotton Situation--September 1941

Outlook for Feed. In the Feed Situation--September 1941

Outlook for Fruit. In The Fruit Situation--September 1941

Outlook for Poultry and Eggs. In The Poultry and Egg Situation--  
September 1941

Outlook for Tobacco. In The Tobacco Situation--September 1941

The Farm Credit Administration:

Marketing Maine Potatoes...By Maynard A. Hincks, Raymond L. Spangler, and Gordon W. Sprague

